

# ABSTRACT OF THE DISCLOSURE

A fluorescence endoscopy video system includes a multimode light source that produces light for color and fluorescence imaging modes. Light from the light source is transmitted through an endoscope to the tissue under observation. The system also includes a compact camera for color and fluorescence imaging. Images obtained through the endoscope are optically divided and projected onto one or more image sensors by a fixed beam splitter in the camera. The fixed beam splitter eliminates the need for inserting a movable mirror into the light path between the endoscope and the image sensors. Image signals from the camera are processed in the system processor/controller where a contrast enhancement function can be applied. The contrast enhancement function increases the color contrast between normal tissue and tissue suspicious for early cancer. Finally, the system also includes a calibration feature whereby the system performance can be maintained when used with different endoscopes.

15